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**Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>				PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	57.012	58.329	68.301	-	68.301	57.606	58.264	59.452	74.063	Continuing	Continuing
0149: <i>International Coop RDT&amp;E</i>	4.842	5.273	3.506	-	3.506	4.110	3.726	3.797	3.878	Continuing	Continuing
1767: <i>Naval War Col Strategic Studies Supt</i>	4.464	4.438	3.927	-	3.927	4.564	4.659	4.746	4.828	Continuing	Continuing
2221.: <i>JT Mission Assessment Studies</i>	28.100	27.963	40.940	-	40.940	25.758	26.270	26.805	27.332	Continuing	Continuing
3025: <i>Mid-Range Financial Improvement Plans</i>	1.532	1.436	1.244	-	1.244	1.462	1.503	1.544	1.582	Continuing	Continuing
3039: <i>CHENG</i>	18.074	19.219	16.566	-	16.566	19.274	19.668	20.122	20.489	Continuing	Continuing
3330: <i>Naval Research Laboratory (NRL) Facilities Modernization</i>	-	-	2.118	-	2.118	2.438	2.438	2.438	15.954	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

International Cooperative RDT&E: provide program management, execution, and support to implement a broad range of cooperative Naval Research and Development, Test and Evaluation initiatives to improve coalition interoperability, harmonize US Navy requirements with allied and friendly nations, and identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches, coordinating with partner nations, to sea-based missile defense, command, control, communications, computers and intelligence (C4I), and cooperative acquisition programs while also identifying technology to support the Global Maritime Partnership initiative.

Naval War College Strategic Studies Support: Provides research, analysis and gaming activities which serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, joint and interagency communities. These efforts generate strategic and operational alternatives, quantitative analysis, war gaming and political military assessments, and provide recommendations regarding the formulation and execution of maritime options. The War Gaming Department plans, designs, executes, analyzes and reports on the Navy's Title 10 war games. These war games provide analytical input to the Navy's Strategic Plan, assessments of future concepts, and recommendations to the Navy's Quadrennial Defense Review, force design, and strategy process. The War Gaming Department also designs, executes and analyzes war games for theater security cooperation plans and operational war fighting issues.

Assessment Program: Provides capability based planning assessment for Joint Capabilities Integration and Development System, conducts analysis to affect war fighting capability trades and enterprise resources, identifies needs, gaps, and overlaps, and assesses alternative solutions to Joint needs. Supports both the development and use of modeling, simulation, and analytically based warfare and provides business analyses and analytic tools that are the basis for decision making with respect to Concepts of Operations (CONOPS); Command, Controls, Communications, Computers, Intelligence, Surveillance and Reconnaissance Systems, FORCEnet; warfare systems (Sea Strike, Sea Shield, and Sea Basing) and their architectures; force structure; and the Navy's core "organize, train, and equip

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification: PB 2012 Navy</b>		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>
<p>mission" (the war fare and provider enterprises). Provides overarching Planning, Programming, Budgeting and Execution System (PPBES) analyses and guidance for PPBES which provides gap analysis and investment strategy and total obligation authority allocation. Provides independent capability analysis and assists in structuring follow-on analyses. Coordinates Navy's position for the enhanced planning process and conducts net assessments. This program serves as the lead campaign analysis group for Navy investment strategy assessments, all of which prove analytical underpinnings and basis for programmatic decisions of the Navy's top leadership regarding the integration of all Navy warfare and support requirements. This program supports "A Cooperative Strategy for 21st Century Seapower 21" as modified by the Maritime Strategy which charts a course for the Navy, Coast Guard and Marine Corps to work collectively and with international partners to prevent crises from occurring or reacting quickly should one occur to avoid negative impact to the United States. This program serves as an independent assessor providing a broad-view perspective across the Navy staff, with an integrated look at both war fighting and war fighting support programs. The program supports the world class modeling efforts to attain a level of modeling and simulation capability that is world class and establishes the Navy as a leader in the Department of Defense (DoD) modeling and simulation community. Provides alternatives in assessing the implications imbedded within resource decisions in a quantified context of costs versus capability versus risk. This program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums. The Assessment Program develops tools and analytical methodologies that assist in evaluating Navy programs and provides technical leadership for the analysis functional area of Naval Modeling and Simulation.</p> <p>Mid-Range Financial Improvement Plans: This project supports the Research Development Test &amp; Evaluation, Navy (RD TEN) portion of the larger DoD and Navy-wide effort to implement the financial improvement plan. Corrective actions are required to resolve known deficiencies and determine resource requirements (people and systems) have been identified. Funding is for the sustainment of clean and auditable statements for RD TEN.</p> <p>Operations Integration Group: Classified</p> <p>CHENG: Develops and implements architecture-based systems engineering processes, methods and tools that assure integrated and interoperable systems are delivered to the fleet. This project provides the mission-oriented technical basis for implementing capability-based acquisition management within the Navy to engineer and field Navy and Marine Corps combat systems, weapon systems, and command, control, communication, computer and intelligence programs that must operate as family-of-systems (FoS) or system-of-systems (SoS). The focus of this project is on identifying the functions, relationships, and connections between systems at both the force and unit level and across warfare mission areas, and encompasses three key elements: Systems Engineering to provide the framework for making engineering decisions by war fighting capability at the FoS/SoS level and support consistent engineering and investment decision-making across Navy and Marine Corps programs within capability-based acquisition portfolios. Naval collaborative engineering environment development and implementation as a Navy enterprise resource for naval integration and interoperability information to enable collaboration and decision support among all Navy organizations. Standards, policies and guidelines engineering and technical staff to implement Navy, OSD and joint integration and interoperability and anti-tamper requirements.</p> <p>Naval Research Laboratory (NRL)Facilities Modernization: This program has been established to provide a systematic and planned approach to improve vital in-house science and technology (S&amp;T) laboratory facilities which are reaching or have reached critical stages of deterioration. The program includes restoration and modernization (R&amp;M) initiatives for about 350,000 net square feet, where the average age of the buildings is 67 years old.</p>		

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0605853N: Management, Technical & Intl Supt			
BA 6: RDT&E Management Support					
B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	60.181	58.329	59.000	-	59.000
Current President's Budget	57.012	58.329	68.301	-	68.301
Total Adjustments	-3.169	-	9.301	-	9.301
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-1.400	-			
• SBIR/STTR Transfer	-1.567	-			
• Program Adjustments	-	-	9.807	-	9.807
• Section 219 Reprogramming	-0.138	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.506	-	-0.506
• Congressional General Reductions	-0.064	-	-	-	-
Adjustments					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt				PROJECT 0149: International Coop RDT&E			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0149: International Coop RDT&E	4.842	5.273	3.506	-	3.506	4.110	3.726	3.797	3.878	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
Provides program management, execution, and support to implement a broad range of cooperative naval Research and Development, Test and Evaluation (RDT&E) initiatives to improve coalition interoperability, harmonize US Navy requirements with allied and friendly nations, identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches in coordination with combatant commanders (COCOMs), and appropriate partner nations, to sea-based missile defense, command, control, communications, computers and intelligence (C4I), and cooperative acquisition programs while also identifying technology to support the Global Maritime Partnership Initiative.											
The project scope was expanded from primarily North Atlantic Treaty Organization (NATO)-centric to include Overseas Contingency Operations (OCO), and Maritime Domain Awareness (MDA) emphasis. Relationships have been, and are being initiated with a greatly expanded and diverse group of maritime countries, particularly those with nascent and littoral navies, located in new regions critical to U.S. security. The project was restructured internally to both maintain ongoing international relationships and projects, while preparing to facilitate support for a global network of maritime nations under MDA and increase OCO-related support requirements.											
Ongoing cooperative RDT&E programs, projects and exchanges are pursued to identify cooperative acquisition programs, enhance OCO efforts and MDA development, fill capability gaps, improve US/coalition interoperability, and set standardization with international partners. Such efforts have resulted in:											
1. Negotiating and developing approximately 57 international RDT&E Agreements annually with allied and friendly nations;											
2. Executing approximately 300 Information Exchange Annexes (IEAs) with foreign partners;											
3. Improving IEA information dissemination with allied and friendly countries and within Department of the Navy (DoN);											
4. Coordinating Navy inputs to the Office of the Under Secretary of Defense (OUSD) Acquisition, Technology, and Logistics (AT&L) Foreign Comparative Test (FCT) Program, and Coalition Warfare Program (CWT) as well as the DoN Technology Transfer Security Assistance Review Boards (TTSARB).											
5. Represent the US Navy in Office of the Secretary of Defense (OSD) directed Armaments Cooperation Forums, including the Conference of NATO Armaments Directors' groups {NATO Naval Armaments Group (NNAG)}, and Senior National Representative-Maritime (SNR-M);											
6. Funding of various international RDT&E support databases including Technical Project Officer (TPO), International Agreement Generators, Information/Data Exchange Agreements, and Project Agreements/Memorandums of Understanding;											
7. Leading the Engineering and Scientist Exchange Program (ESEP).											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: International Coop RDT&E								4.842	5.273	3.506	
Articles:								0	0	0	
FY 2010 Accomplishments:											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy			<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>		<b>PROJECT</b> 0149: <i>International Coop RDT&amp;E</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>			<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<p>Maintained internal DoN international databases to support international cooperative activities and projects with allies. Assessed functional ability to integrate DoN international databases across OPNAV departments to improve leveraging of program dollars, fielding of better products and speeding delivery.</p> <ul style="list-style-type: none"> <li>- Continued to support Maritime Theater Missile Defense Forum that obtained \$8.1M in R&amp;D monies from Partner Nation contributions. The multi-lateral forum (9 Maritime Partner countries and the US Navy) entered into four international agreements (Battle Management Command, Control, Communications, Computers and Intelligence (BMC4I); Distributed Engineering Plant; Open Architecture; and Modeling and Simulation (M&amp;S). The Maritime Theater Missile Defense Forum has a goal of an at-sea capability demonstration in 2015.</li> <li>- Continued US Navy International Bench, a new internet-based connector and composeable tool to enhance collaboration between US military and agency personnel engaged in international work. Continued to coordinate US Navy's participation in OUSD AT&amp;L's Foreign Comparative Test (FCT) Program and the Coalition Warfare Program (CWP) selection processes to meet emerging military Capability requirements.</li> <li>- Continued execution of approximately 300 Information Exchange Agreements/Date Exchange Agreements (IEA/DEA) with more than 30 countries.</li> <li>- Continued execution and support in placement of US Navy and partner nation engineers and scientists under OSD's Engineer and Scientist Exchange Program (ESEP). Funded various evolving potential cooperative exchanges and projects contributing to Maritime Domain Awareness (MDA) and irregular warfare including Multi-Mission Aircraft (MMA), Broad Area Maritime Surveillance (BAMS), Submarine Littoral Weapons System, and Swimmer Engagement. Coordinated US Navy support to OUSD (AT&amp;L) International Cooperation office. Supported new CNO-Initiated Strategy Dialogue with Australia, including Air and Expeditionary Warfare Working Groups for mutual development of requirements and projects. Supported NATO Naval Armaments Group (NNAG) and Five Power Groups on cooperative programs including harbor protection, electronic warfare, and Defense Against Terrorism (DAT) trials.</li> </ul> <p><b>FY 2011 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue all efforts of FY10.</li> </ul> <p><b>FY 2012 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue all efforts of FY11.</li> </ul>					
<b>Accomplishments/Planned Programs Subtotals</b>			4.842	5.273	3.506

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<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> The Navy International Cooperative RDT&E project supports the implementation of many international cooperative program activities throughout the Department of the Navy (DoN) RDT&E communities. The project funds DoN participation in NATO and OSD lead Armaments Cooperation as well as DoN lead international cooperation that promotes coalition interoperability and set standards with international partners. The focused activities under this project maximize the DoN's efforts by leveraging international technologies and funding to fill capabilities gaps, gain access to foreign research and testing data, and avoid duplication of research and development efforts. The performance goals and metrics are, in cooperation with Maritime Partner nations, to set and harmonize requirements, utilize respective technologies, encourage financial contributions and facilities use, and support forums and work that reduce DoN funding requirements.		

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt				PROJECT 1767: Naval War Col Strategic Studies Supt			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1767: Naval War Col Strategic Studies Supt	4.464	4.438	3.927	-	3.927	4.564	4.659	4.746	4.828	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
Naval War College (NWC) research, analysis and gaming activities serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, Joint and Interagency communities. These efforts generate strategic and operational alternatives, tactical imperatives, quantitative analysis, war gaming, political-military assessments, and provide recommendations to the Chief of Naval Operations (CNO), Fleet Commanders and numbered Fleet Commanders regarding the formulation and execution of maritime options for the President of the United States.											
This project provides research, analysis and war gaming to meet the needs of the Navy. Performance is measured in terms of both the quantity and quality of war games, analysis and the extent to which demand for war games and research products can be accommodated within funding levels. Results of research products and war games are evaluated through customer feedback and the extent to which findings are incorporated into follow-on research and practical applications such as Navy doctrine, operational tactics, and programming decisions made during the Planning, Programming, Budgeting & Execution (PPBE) process.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: Strategic Studies								1.083	1.067	1.460	
								Articles: 0	0	0	
Description: Naval War College (NWC) conducts research in strategic studies in response to tasking from the Navy and Combatant Commanders (COCOMS). NWC also hosts the activities of the CNO's Strategic Studies Group (SSG). The CNO SSG is a select group of senior naval officers handpicked by the CNO, who report to him in the development of revolutionary war fighting and operational concepts, such as Sea Strike and FORCEnet.											
FY 2010 Accomplishments: - Conducted research and analysis projects and provided supporting events. - Supported staff on operational and strategic level of war tasked research projects. - CNO SSG tasking from the CNO to SSG XXIX generated revolutionary operating and war fighting concepts for maritime operations in the age of hypersonic and directed energy weapons. Following up on actions resulting from SSG XXVII Final Report "The Unmanned Imperative."											
FY 2011 Plans: - Conduct research and analysis projects and provide supporting events. - Continue to support the staff on tasked research projects.											

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 1767: Naval War Col Strategic Studies Supt		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>- CNO SSG tasking from the CNO to SSG XXX to generate revolutionary operating and war fighting concepts for future Navy and maritime operations. Following up on actions resulting from SSG XXIX Final Report.</p> <p><b>FY 2012 Plans:</b></p> <p>- Conduct research and analysis projects and provide supporting events.</p> <p>- Continue to support the staff on tasked research projects.</p> <p>- CNO SSG tasking from the CNO to SSG XXX to generate revolutionary operating and war fighting concepts for future Navy and maritime operations. Following up on actions resulting from SSG XXIX Final Report.</p>				
<p><b>Title:</b> Naval War Gaming Support</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Naval War College (NWC) conducts strategic and operational war gaming and research. Each year, 50-60 major war games and associated events provide support to efforts that explore and analyze military, political, informational and economic aspects of differing strategic and operational scenarios and tactical imperatives.</p> <p><b>FY 2010 Accomplishments:</b></p> <p>- Continued to conduct 55-60 major war games and related events.</p> <p>- Continued to support Navy Title X war games, research, and analysis. Continued to provide war gaming expertise to other services' Title 10 war games.</p> <p>- Continued to provide research, analysis, and war gaming support to senior Navy leadership in areas as directed, such as maritime domain awareness (MDA), force structure, and logistics.</p> <p>- Continued to foster and sustain cooperative relationships with international partners through the use of war gaming, research, and analysis.</p> <p>- Continued to conduct research supporting war games co-sponsored with US Joint Forces Command.</p> <p>- Continued to conduct analytic research on maritime security cooperation planning and systems thinking.</p> <p>- Continued to conduct advanced research and analysis on determining measures of effectiveness for implementation of Cooperative Strategy for 21st Century Seapower.</p> <p>- Continued to conduct high level policy analytic research and gaming addressing Proliferation Security Initiatives for Office of the Secretary of Defense (OSD).</p> <p>- Developed war gaming, research and analytical support for Navy core capabilities, such as deterrence, maritime security, and sea control.</p> <p>- Continued and expanded international War Gaming in support of Maritime Security Cooperation.</p> <p>- Continued to conduct research and develop advanced gaming for Joint/Combined Force Maritime Component Commander Flag Officer Course and Maritime Staff Officers Course.</p>		2.048 0	2.019 0	1.48 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
		FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"><li>- Continued to develop educational materials for the Maritime Advanced Warfighting School (formerly the Naval Operations Planners Course).</li><li>- Continued to conduct research and analysis on key operational challenges such as theater anti-submarine warfare, maritime missile defense, global maritime security, maritime homeland defense, MDA, and sea basing.</li><li>- Continued to develop advanced war gaming analytical methods and tools.</li></ul> <p><b>FY 2011 Plans:</b></p> <ul style="list-style-type: none"><li>- Continue to conduct 55-60 major war games and related events.</li><li>- Continue to support Navy Title X war games, research, and analysis. Continued to provide war gaming expertise to other services' Title 10 war games.</li><li>- Continue to provide research, analysis, and war gaming support to senior Navy leadership in areas as directed, such as MDA, Irregular Warfare, cyber, and Command, Controls, Communications, Computers, Intelligence, Surveillance, and Reconnaissance Systems (C4ISR).</li><li>- Continue to foster and sustain cooperative relationships with international partners through the use of war gaming, research, and analysis.</li><li>- Continue to conduct research supporting war games co-sponsored with US Joint Forces Command.</li><li>- Continue to conduct analytic research on maritime security cooperation planning and systems thinking.</li><li>- Support advance concepts in war fighting areas of interest, such as critical infrastructure protection.</li><li>- Continue to conduct advanced research and analysis for OPNAV on determining measures of effectiveness for implementation of Cooperative Strategy for 21st Century Seapower.</li><li>- Continue to conduct high level policy analytic research and gaming addressing Proliferation Security Initiatives for Office of the OSD.</li><li>- Continue war gaming, research and analytical support for Navy core capabilities, such as deterrence, maritime security, and sea control.</li><li>- Continue and expand international War Gaming in support of Maritime Security Cooperation and implementation of Cooperative Strategy for 21st Century Seapower.</li><li>- Continue to conduct research and develop advanced gaming for Joint/Combined Force Maritime Component Commander Flag Officer Course and Maritime Staff Officers Course.</li><li>- Continue to develop educational materials for the Maritime Advanced Warfighting School (formerly the Naval Operations Planners Course).</li><li>- Continued to conduct research and analysis on key operational challenges such as theater anti-submarine Warfare, maritime missile defense, global maritime security, maritime homeland defense, MDA, and sea basing.</li></ul>				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
		FY 2010	FY 2011	FY 2012
<div>- Continue to develop advanced war gaming analytical methods and tools.</div> <div>FY 2012 Plans:</div> <div>- Continue to conduct 55-60 major war games and related events.</div> <div>- Continue to support Navy Title X war games, research, and analysis. Continued to provide war gaming expertise to other services' Title 10 war games.</div> <div>- Continue to provide research, analysis, and war gaming support to senior Navy leadership in areas as directed, such as MDA, Irregular Warfare, cyber, and C4ISR.</div> <div>- Continue to foster and sustain cooperative relationships with international partners through the use of war gaming, research, and analysis.</div> <div>- Continue to conduct research supporting war games co-sponsored with US Joint Forces Command.</div> <div>- Continue to conduct analytic research on maritime security cooperation planning and systems thinking.</div> <div>- Support advance concepts in war fighting areas of interest, such as critical infrastructure protection.</div> <div>- Continue to conduct advanced research and analysis on determining measures of effectiveness for implementation of Cooperative Strategy for 21st Century Seapower.</div> <div>- Continue to conduct high level policy analytic research and gaming addressing Proliferation Security Initiatives for Office of the Secretary of Defense (OSD).</div> <div>- Continue war gaming, research and analytical support for Navy core capabilities, such as deterrence, maritime security, and sea control.</div> <div>- Continue and expand international War Gaming in support of Maritime Security Cooperation and implementation of Cooperative Strategy for 21st Century Seapower.</div> <div>- Continue to conduct research and develop advanced gaming for Joint/Combined Force Maritime Component Commander Flag Officer Course and Maritime Staff Officers Course.</div> <div>- Continue to develop educational materials for the Maritime Advanced Warfighting School (formerly the Naval Operations Planners Course).</div> <div>- Continued to conduct research and analysis on key operational challenges such as theater anti-submarine Warfare, maritime missile defense, global maritime security, maritime homeland defense, MDA, and sea basing.</div> <div>- Continue to develop advanced war gaming analytical methods and tools.</div>				
<div>Title: Warfare Analysis and Research</div> <div>Articles:</div> <div>FY 2010 Accomplishments:</div> <div>- Continued to conduct major decision events. Projects were in direct support of war fighting analysis requirements for numbered fleet commanders and were expanded to include particular focus on India and the Indian Ocean.</div>		0.5450	0.5530	0.2720

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 1767: Naval War Col Strategic Studies Supt		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<div>- Conducted analytical research on key strategic and operational challenges such as maritime ballistic missile defense, proliferation security initiative, global maritime security, maritime situational awareness, maritime operations headquarters, interconnectivity, and multi-service force deployment.</div> <div>- Continued additional evaluation of concepts and decision events in conjunction with war gaming center.</div> <div>- Conducted research targeted at the strategic and policy level decision making within China.</div> <div>- Continued to provide direct support to NWC student research groups and war gaming.</div> <div>- 30-40 major decisions are conducted in support of these efforts.</div> <div>FY 2011 Plans:</div> <div>- Continue to conduct major decision events. Projects will be in direct support of war fighting analysis requirements for numbered fleet commanders</div> <div>- Conduct analytical research on key strategic and operational challenges such as maritime ballistic missile defense, proliferation security initiative, global maritime security, maritime situational awareness, maritime operations headquarters, interconnectivity, and multi-service force deployment.</div> <div>- Continue additional evaluation of concepts and decision events in conjunction with war gaming center.</div> <div>- Conduct research targeted at the strategic and policy level decision making within China.</div> <div>- Continued to provide direct support to NWC student research groups and war gaming.</div> <div>- 30-40 major decisions are conducted in support of these efforts.</div> <div>FY 2012 Plans:</div> <div>- Continue to conduct major decision events. Projects will be in direct support of war fighting analysis requirements for numbered fleet commanders.</div> <div>- Conduct analytical research on key strategic and operational challenges such as maritime ballistic missile defense, proliferation security initiative, global maritime security, maritime situational awareness, maritime operations headquarters, interconnectivity, and multi-service force deployment.</div> <div>- Continue additional evaluation of concepts and decision events in conjunction with war gaming center.</div> <div>- Conduct research targeted at the strategic and policy level decision making within China.</div> <div>- Continued to provide direct support to NWC student research groups and war gaming.</div> <div>- 30-40 major decisions are conducted in support of these efforts.</div>				
Title: NWC Student Research Projects		0.110	0.112	0.114
Articles:		0	0	0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt		PROJECT 1767: Naval War Col Strategic Studies Supt
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
<p><b>Description:</b> Selected, top performing Naval War College (NWC) students to conduct focused research and analysis of current and future strategic and operational challenges and tactical imperatives. These students are organized under the supervision of the Mahan Scholars Program and the Halsey Group Program.</p> <p><b>FY 2010 Accomplishments:</b></p> <ul style="list-style-type: none"><li>- Conducted focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey Groups and Mahan Scholars programs.</li><li>- Research groups continued to conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Pacific, European Command (EUCOM), Central Command (CENTCOM) and Northern Command (NORTHCOM) area of responsibility (AOR). Research and analysis efforts continued in those areas above, and was expanded to include a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level.</li><li>- Conducted research for Deputy Secretary of Defense (DEPSECDEF) on matters tasked to the college.</li></ul> <p><b>FY 2011 Plans:</b></p> <ul style="list-style-type: none"><li>- Conduct focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey Groups and Mahan Scholars programs.</li><li>- Research groups continue to conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Pacific, EUCOM, CENTCOM and NORTHCOM AOR. Research and analysis efforts continue in those areas above, and will be expanded to include a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level.</li><li>- Conduct research for DEPSECDEF on matters tasked to the college.</li></ul> <p><b>FY 2012 Plans:</b></p> <ul style="list-style-type: none"><li>- Conduct focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey Groups and Mahan Scholars programs.</li><li>- Research groups continue to conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Pacific, European Command (EUCOM), Central Command (CENTCOM) and Northern Command (NORTHCOM) area of responsibility (AOR). Research and analysis efforts continue in those areas above, and will be expanded to include a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level.</li></ul>		FY 2010	FY 2011	FY 2012

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 1767: <i>Naval War Col Strategic Studies Supt</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
- Conduct research for Deputy Secretary of Defense (DEPSECDEF) on matters tasked to the college.			
<b>Title:</b> Maritime Headquarters / Maritime Operations Center (MOC) Analysis  <b>Description:</b> Formerly JFMCC/Worldwide Naval Component Commanders (WNCC). Naval War College (NWC) conducts research and analysis at the operational level of war, including direct support for the Maritime Headquarters (MHQ) with MOC and Combined/Joint Forces Maritime Component Commander (C/JFMCC) activities. These activities include support for concept and doctrine development of numbered fleet war games, exercises, education, research and analysis. NWC is responsible for development of Professional Military Education for Naval Component Commanders and Numbered Fleet Staff personnel, and the Numbered Fleet Commander, including education and research initiatives in support of concept of operations development, training and C/JFMCC advisory and assist team.  <b>FY 2010 Accomplishments:</b> All activities - Researched/Developed educational products to enhance the activities and operational capability of the C/JFMCC including conducting US- and international-based course materials. - Researched/Developed methods to improve direct support for education, exercise development and execution, planning methods/means, assessment processes, and real-time execution of directed tasks. - Researched/Developed specific MOC-related planning and assessment tools for Haiti contingency. - Provided assist team visits in support of analysis and definition of maritime operational processes, including execution battle management, tasking subordinates, operational level planning and operational/effects assessment. - Continued research into the required competencies for Maritime Staff Operations Course (MSOC) for officer and enlisted personnel to successfully operate at the operational level of war. - Researched and developed educational products on maritime matters to better prepare officers and senior enlisted personnel to effectively serve in operational staff assignments in Maritime Operations Centers (MOC) at 3 or 4 star operational headquarters, or represent maritime planning efforts while serving in other service, joint or combined liaison billets. - Developed methods to improve NWC's mission to provide a continuum of Joint Professional Military Education and support operational commanders through enhanced education and training. Included improved methods to familiarize students with operational and Navy theory, concepts, doctrine, organizations, capabilities, responsibilities, functions, planning and execution processes techniques and practices. - Provided subject matter expertise for concept and doctrine development of numbered fleet war games, exercises, education, research and analysis. - Provided research and analysis of senior mentor and executive leadership development within maritime headquarters.		0.678 0	0.687 0
			0.600 0

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 1767: <i>Naval War Col Strategic Studies Supt</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
<p>- Conducted research and analysis in competencies and manpower capabilities at the operational level of war, including direct support for objective manpower resource data and decision making tools at operational level maritime headquarters.</p> <p><b>FY 2011 Plans:</b> All activities</p> <ul style="list-style-type: none"> <li>- Remain credible, relevant and focused through continued development of MOC processes, doctrine and educational products Maritime Staff Operators Course (MSOC)</li> <li>- Expand research into the required competencies for MSOC for officer and enlisted personnel to successfully operate at the operational level of war.</li> <li>- Actively participate in creation and review of existing and emerging doctrine, and have active involvement in development of evolving operational level issues.</li> <li>- Incorporate more interactive technologies for staff collaboration while conducting distributed operations.</li> <li>- Conduct research in advanced adaptive intelligence, information warfare, and other advanced decision-support tools, including adapting Spiral-developed systems into the MOC classroom environment.</li> <li>- Continue research to improve coalition-related MOC education programs for International Officers and senior officers (continued improvements). Includes support for MAWS and alignment with all other operational level education at NWC and other Service educational facilities.</li> <li>- Examine gaps in education at the OLW; develop COI to close same gaps (Information management/knowledge management, et al).</li> </ul> <p>Assist and Assess Team (AAT)</p> <ul style="list-style-type: none"> <li>- Expand research and analysis into integrating lateral and vertical operations of Commander, TENTH Fleet MOC with operations at existing numbered fleet MOCs, USFFC and US Pacific Fleet as well as upward to the new USCYBERCOM and downward to subordinate CTFs and commands.</li> <li>- Conduct research and analysis into potential methods for integration of information operations (to include cyber operations) with traditional kinetic joint fires operations. Cyber operations (network attack, defense, and exploitation) present unique challenges due to the global nature of the domain, the potential effects on other MOCs and the importance of alignment for effective strategic communication.</li> <li>- Conduct research into how Navy units worldwide can support Commander, TENTH Fleet in the execution of the full spectrum of information and cyber operations.</li> <li>- Provide tailored assistance to Commander, TENTH Fleet and Commanders of other MOCs to communicate results of above research and analysis efforts and to strengthen staff knowledge of joint information operations planning, execution, and assessment.</li> </ul> <p>Joint/Combined Forces Maritime Commanders Course (J/CFMCC)</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 1767: <i>Naval War Col Strategic Studies Supt</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
<ul style="list-style-type: none"> <li>- Continue development/research in national and international implications of maritime commander leadership roles, and development of new flag course curriculum accordingly.</li> <li>-Research in the impacts of transition from contract to government employee support for senior mentors with regards to implementation of CNO's priorities on operational level leadership and flag academics.</li> </ul> <p><b>FY 2012 Plans:</b></p> <p>All activities</p> <ul style="list-style-type: none"> <li>- Remain credible, relevant and focused through continued development of MOC processes, doctrine and educational products.</li> </ul> <p>MSOC</p> <ul style="list-style-type: none"> <li>- Continue research as noted, including expansion of understanding of intelligence and net-centric warfare in MOC development and education</li> <li>- Continue research/development on understanding and mitigation of gaps in education at the OLW.</li> <li>- Conduct research to develop COI to close same gaps (Information management/knowledge management, et al)</li> </ul> <p>AAT.</p> <ul style="list-style-type: none"> <li>- Conduct research and analysis into integrating lateral and vertical operations developed to improving the effectiveness of operations at existing numbered fleet MOCs, USFFC and US Pacific Fleet as well as upward to the new USCYBERCOM and downward to subordinate CTFs and commands.</li> <li>- Conduct research and analysis into potential methods for integration of information operations (to include cyber operations) with traditional kinetic joint fires operations. Cyber operations (network attack, defense, and exploitation) present unique challenges due to the global nature of the domain, the potential effects on other MOCs and the importance of alignment for effective strategic communication.</li> </ul> <p>J/CFMCC</p> <ul style="list-style-type: none"> <li>- Continue development/research in national and international implications of maritime commander leadership roles, and development of new flag course curriculum accordingly.</li> <li>- Carry out research on other senior leader development within MOCs, including deputy, chiefs of staff, and other executives responsible for team leadership and decision making.</li> <li>- Conduct research to improve JFMCC integration with component commanders (JFLCC, JFACC, JSOCC).</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>		4.464	4.438
			3.927

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 1767: <i>Naval War Col Strategic Studies Supt</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> This project provides research, analysis and war gaming to meet the needs of the Navy. Performance is measured in terms of both the quantity and quality of war games, analysis and the extent to which demand for war games and research products can be accommodated within funding levels. Results of research products and war games are evaluated through customer feedback and the extent to which findings are incorporated into follow-on research and practical applications such as Navy doctrine, operational tactics, and programming decisions made during the Planning, Programming, Budgeting & Execution (PPBE) process.		



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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt				PROJECT 2221.: JT Mission Assessment Studies			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2221.: JT Mission Assessment Studies	28.100	27.963	40.940	-	40.940	25.758	26.270	26.805	27.332	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**

The Navy Assessment Program provides capability-based planning assessment for Joint Capabilities Integration and Development System (JCIDS), conducts analysis to affect war fighting capability trades and enterprise resources, identifies needs, gaps, and overlaps, and assesses alternative solutions to Joint needs. The program supports both the development and use of modeling, simulation and analytically-based warfare and provides business analyses and analytic tools that provide the basis for decision making with respect to concepts of operations (CONOPS), Command, Controls, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems (Information Dominance), warfare systems (Sea Strike, Sea Shield, and Sea Basing) and analytical underpinnings/basis for programmatic decisions of the Navy's top leadership regarding their architectures, force structure, and the Navy's core "organize, train, and equip mission" (the warfare and provider Enterprises). The program provides overarching Planning, Programming, Budgeting and Execution System (PPBES) analyses and guidance for PPBES which provides gap analysis and investment strategy and total obligation authority allocation. It provides independent capability analysis and assists in structuring follow-on Navy analyses. The program coordinates Navy's position for the enhanced planning process and conducts net assessments. It serves as the lead campaign analysis to approve Navy warfare and support requirements. The program supports "A Cooperative Strategy for 21st Century Seapower 21" as modified by the Maritime Strategy which charts a course for the Navy, Coast Guard and Marine Corps to work collectively with each other and international partners to prevent crises from occurring or reacting quickly should one occur to avoid negative impact to the United States. It serves as an independent assessor providing a broad-view perspective across the Navy staff apart from resource sponsors, with an integrated look at both war fighting and war fighting support programs. The program supports the world class modeling efforts to attain a level of modeling and simulation (M&S) capability that is world class and establishes the Navy as a leader in the Department of Defense (DoD) M&S community. It provides Navy alternatives in assessing the implications embedded within resource decisions in a quantified context of costs versus capability versus risk. The program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums. It develops tools and analytical methodologies that assist in evaluating Navy programs and provides technical leadership for the analysis functional area of Naval M&S. Capabilities-Based Assessment (CBA) is the Joint Capabilities Integration and Development System analysis process that includes three phases: Functional Area Analysis (FAA), Functional Needs Analysis (FNA), and Functional Solution Analysis. The results of the CBA are used to develop a joint capabilities document (based on the FAA and FNA) or initial capabilities document (based on the full analysis). CBA funding provides the resource sponsors the means to develop the analytic underpinning required by Chairman of the Joint Chiefs of Staff Instruction 3170.01G to support the determination of Naval warfighting capabilities and force structure needed to support the Joint Requirements Oversight Council/Joint Capabilities Integration and Development System (JCIDS) requirements validation process and to inform Program Objective Memorandum programming decisions.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Title:</b> Navy Standard Scenarios with Warfare and Warfare Support Analyses	1.551	1.582	1.622
<b>Articles:</b>	0	0	0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 2221.: JT Mission Assessment Studies		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p><b>FY 2010 Accomplishments:</b> Developed, updated, and maintained detailed level Navy Standard Scenarios based on Defense Planning Guidance. Developed alternative scenarios in support of Program Objective Memorandum (POM) guidance, Joint Studies, and Navy resource analyses. Developed, updated, and maintained analytic baselines for the Major Combat Operations (MCOs) based on Defense Planning Guidance. Developed a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition, and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. Developed Measures of Performance (MOP) and Measures of Effectiveness (MOE) and recommended appropriate modeling/methodology to support analyses. Developed scenarios and operational concepts based on government inputs that were sufficiently detailed for use in naval and joint campaign analyses. At the mission level, scripted operational or tactical situations for use in effectiveness analyses in specific warfare mission areas. Developed details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans.</p> <p><b>FY 2011 Plans:</b> Continue to develop, update, and maintain detailed level Navy Standard Scenarios based on Defense Planning Guidance. Develop alternative scenarios in support of Program Objective Memorandum (POM) guidance, Joint Studies, and Navy resource analyses. Develop, update, and maintain analytic baselines for the Major Combat Operations (MCOs) based on Defense Planning Guidance. Develop a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition, and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. Develop Measures of Performance (MOP) and Measures of Effectiveness (MOE) and recommended appropriate modeling/methodology to support analyses. Develop scenarios and operational concepts based on government inputs that were sufficiently detailed for use in naval and joint campaign analyses. At the mission level, scripted operational or tactical situations for use in effectiveness analyses in specific warfare mission areas. Develop details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans.</p> <p><b>FY 2012 Plans:</b> Continue to develop, update, and maintain detailed level Navy Standard Scenarios based on Defense Planning Guidance. Develop alternative scenarios in support of POM guidance, Joint Studies, and Navy resource analyses. Develop, update, and maintain analytic baselines for the MCOs based on Defense Planning Guidance. Develop a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition, and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. Develop MOP and MOE and recommended appropriate modeling/methodology to support analyses. Develop scenarios and operational concepts based on government inputs that were sufficiently detailed for</p>				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 2221.: <i>JT Mission Assessment Studies</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
use in naval and joint campaign analyses. At the mission level, scripted operational or tactical situations for use in effectiveness analyses in specific warfare mission areas. Develop details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans.			
<b>Title:</b> Capability Based Assessments with Campaign Mission Analyses Analytical and Technical Support		2.922	3.105
<b>Articles:</b>		0	0
<b>FY 2010 Accomplishments:</b> Assessed capability sponsors' products for Navy senior leadership decision forums. Performed collaborative assessment with capability sponsors. Proactively participated in Capability Sponsors' Integrated Processing Teams (IPTs). Presented opposing analytically-based points of view to Navy senior leadership. Provided analytically-based decision recommendations for both war fighting and support areas. Developed investment strategy recommendations and assessments for Program Review and POM. Assessed capability sponsor's products for senior leadership decision forums. Conducted verification, validation and accreditation of warfare, performance, and pricing models. Conducted Overseas Contingency Operation (OCO) Capabilities-Based Assessment (CBA) that provided a rapid and scalable process to utilize a Concept of Operation, developed investment strategy, and a capability roadmap. Conducted Tactical Aircraft Recapitalization alternatives and Theater Ballistic Missile Defense cost capability trade off assessments. Conducted independent assessment of Anti-Submarine Warfare. Conducted weapons safety and sea basing capability assessments. Conducted Intelligence Surveillance Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of Naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the OCO, and intelligence preparation of the environment for both MCOs and OCO. Performed CBAs to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework. Performed rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminated complex warfare issues which supported decision-making in the Planning, Programming, Budgeting Executing (PPBE) process. Performed analyses and provided technical and engineering support, including, joint campaign analysis that examined the ability to counter a range of coordinate threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, mission-level effectiveness analyses that determined system capabilities; conducted analyses of alternative force structures that determined the ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations. Conducted cost analyses, cost-effectiveness analyses, and analyses of new technologies in support of Sponsor Program Proposal, Navy Program Review and Program Objective Memorandum (POM) or Warfare Capability Plan. Developed innovative analysis techniques that evaluated the effectiveness of operations on the Long War focus on Irregular Warfare and Sea Shaping (influence) activities such as Theater Security Cooperation. Provided rigorous business case assessments of complex issues relating to the war fighting support processes, manpower and personnel, training and education, infrastructure, both afloat and ashore readiness, Naval Medical Program and provider enterprise operations. Performed analyses for accreditation of models,			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 2221.: JT Mission Assessment Studies		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
used estimate cost and performance of performance-based modeled programs such as the Flying Hour Program, ship operations, ship and aircraft maintenance, spares, facilities, and base operation support.  <b>FY 2011 Plans:</b> Continue to assess capability sponsors' products for Navy senior leadership decision forums. Perform collaborative assessment with capability sponsors. Proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Present opposing analytically-based points of view to Chief of Naval Operations (CNO) and Navy senior leadership. Provide analytically-based decision recommendations to CNO for both war fighting and support areas. Develop CNO investment strategy recommendations and assessments for Program Review and POM. Assess capability sponsor's products for senior leadership decision forums. Conduct verification, validation & accreditation of warfare, performance, and pricing models. Conduct OCO Capabilities-Based Assessment (CBA) that provide a rapid and scalable process to utilize a Concept of Operation (CONOP), develop investment strategy, and a capability roadmap. Conduct Tactical Aircraft Recapitalization alternatives and Theater Ballistic Missile Defense cost capability trade off assessments. Conduct independent assessment of Anti-Submarine Warfare. Conduct weapons safety and sea basing capability assessments. Conduct ISR and METOC assessment to determine the optimal mix of Naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support MCOs, the OCO, and intelligence preparation of the environment for both MCOs and OCO. Perform CBAs to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework. Perform rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminate complex warfare issues which support decision-making in the Planning, Programming, Budgeting Executing (PPBE) process. Perform analyses and provide technical and engineering support, including, joint campaign analysis that examine the ability to counter a range of coordinate threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, mission-level effectiveness analyses that determine system capabilities; conduct analyses of alternative (AoA) force structures that determine the ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations. Conduct cost analyses, cost-effectiveness analyses, and analyses of new technologies in support of Sponsor Program Proposal, Navy Program Objectives Memorandum (POM)or Warfare Capability Plan. Develop innovative analysis techniques that evaluate the effectiveness of operations on the Long War focus on Irregular Warfare and Sea Shaping (influence) activities such as Theater Security Cooperation. Provide rigorous business case assessments of complex issues relating to the war fighting support processes, manpower and personnel, training and education, infrastructure, both afloat and ashore readiness, Naval Medical Program and provider enterprise operations. Perform analyses for accreditation of models, use estimate cost and performance of performance-based modeled programs such as the Flying Hour Program, ship operations, ship and aircraft maintenance, spares, facilities, and base operation support.  <b>FY 2012 Plans:</b>				

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 2221.: JT Mission Assessment Studies		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Continue to assess capability sponsors' products for Navy senior leadership decision forums. Perform collaborative assessment with capability sponsors. Proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Present opposing analytically-based points of view to the Chief of Naval Operations (CNO) and Navy senior leadership. Provide analytically-based decision recommendations to CNO for both war fighting and support areas. Develop CNO investment strategy recommendations and assessments for Program Review and POM. Assess capability sponsor's products for senior leadership decision forums. Conduct verification, validation & accreditation of warfare, performance, and pricing models. Conduct Overseas Contingency Operation (OCO) Capabilities-Based Assessments (CBAs) that provide a rapid and scalable process to utilize a Concept of Operation (CONOP), develop investment strategy, and a capability roadmap. Conduct Tactical Aircraft Recapitalization alternatives and Theater Ballistic Missile Defense cost capability trade off assessments. Conduct independent assessment of Anti-Submarine Warfare. Conduct weapons safety and sea basing capability assessments. Conduct Intelligence Surveillance Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of Naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the OCO, and intelligence preparation of the environment for both MCOs and OCO. Perform CBAs to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework. Perform rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminate complex warfare issues which support decision-making in the PPBE process. Perform analyses and provide technical and engineering support, including, joint campaign analysis that examine the ability to counter a range of coordinate threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, mission-level effectiveness analyses that determine system capabilities; conduct analyses of alternative (AoA) force structures that determine the ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations. Conduct cost analyses, cost-effectiveness analyses, and analyses of new technologies in support of Sponsor Program Proposal, Navy Program Objectives Memorandum (POM) or Warfare Capability Plan. Develop innovative analysis techniques that evaluate the effectiveness of operations on the Long War focus on Irregular Warfare and Sea Shaping (influence) activities such as Theater Security Cooperation. Provide rigorous business case assessments of complex issues relating to the war fighting support processes, manpower and personnel, training and education, infrastructure, both afloat and ashore readiness, Naval Medical Program and provider enterprise operations. Perform analyses for accreditation of models, use estimate cost and performance of performance-based modeled programs such as the Flying Hour Program, ship operations, ship and aircraft maintenance, spares, facilities, and base operation support.				
Title: Campaign Analysis-Modeling and Simulation		5.686	5.914	4.946
Articles:		0	0	0
FY 2010 Accomplishments:				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 2221.: JT Mission Assessment Studies		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Developed and maintained common baselines from which campaign excursions and mission-level analyses are executed. Identified, developed, and improved data and modeling. Led Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Provided coordination across the Navy. Brokered agreements upon assumptions, Concept of Operations, scenarios, and data. Led campaign analysis . Conducted modeling and simulation support for ongoing OPNAV missile defense analysis requirements.  <b>FY 2011 Plans:</b> Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. Identify, develop, and improve data and modeling. Lead Navy's participation in OSD/Joint Staff analytic agenda, baseline development, and collection of data. Provide coordination across the Navy. Broker agreements upon assumptions, Concept of Operations, scenarios, and data. Lead campaign analysis for OPNAV. Conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements.  <b>FY 2012 Plans:</b> Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. Lead Navy's participation in OSD/Joint Staff analytic agenda, baseline development, and collection of data. Provide coordination across the Navy. Broker agreements upon assumptions, Concept of Operations, scenarios, and data. Lead campaign analysis for OPNAV. Conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements.				
<b>Title:</b> OSD/Joint Staff Study Analysis and Assessment with Investment Strategy Development  <b>Articles:</b>  <b>FY 2010 Accomplishments:</b> Coordinated and led OSD/Navy's Analytic Agenda in Defense Planning Scenario, Multi-Service Force Deployment, Enhanced Planning Process, Strategic Planning Guidance, and participated in Capability Sponsors' Integrated Processing Teams. Provided overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Provided analytically-based decision recommendations to OPNAV for joint war fighting and support areas. Conducted net assessments and provided independent analytic support to Navy leadership in conjunction with various executive level decision forums. Served as the Navy's lead to Joint Requirements Oversight Council, Joint Capabilities Board, and Functional Capabilities Board. Provided the lead requirements and acquisition for OPNAV. Coordinated and led Navy's role in Defense Planning Guidance, Program Decision Memoranda, Quadrennial Defense Review, and Defense Science Board studies. Participated in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provided structure for coordination across the Navy. Coordinated and supported Joint Analytical Model Improvement Program. Developed new analytic techniques for informing resource allocation decision; conducted all campaign and warfare mission-level analyses and developed investment strategy.  <b>FY 2011 Plans:</b>		2.251 0	2.126 0	2.179 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt		PROJECT 2221.: JT Mission Assessment Studies
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Continue to coordinate and lead OSD/Navy's Analytic Agenda in Defense Planning Scenario, Multi-Service Force Deployment, Enhance Planning Process, Strategic Planning Guidance, and participate in Capability Sponsors' Integrated Processing Teams. Provide overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Provide analytically-based decision recommendations to OPNAV for joint war fighting and support areas. Conduct net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums. Serve as the Navy's lead to Joint Requirements Oversight Council, Joint Capabilities Board, and Functional Capabilities Board. Provide the lead requirements and acquisition for OPNAV. Coordinate and lead Navy's role in Defense Planning Guidance, Program Decision Memoranda, Quadrennial Defense Review, and Defense Science Board studies. Participate in Office of the Secretary of Defense and Joint Staff analysis assessment and provide structure for coordination across the Navy. Coordinate and support Joint Analytical Model Improvement Program. Develop new analytic techniques for informing resource allocation decision; conduct all campaign and warfare mission-level analyses and develop investment strategy.  FY 2012 Plans: Continue to coordinate and lead OSD/Navy's Analytic Agenda in Defense Planning Scenario, Multi-Service Force Deployment, Enhance Planning Process, Strategic Planning Guidance, and participate in Capability Sponsors' Integrated Processing Teams. Provide overarching PPBS analyses and guidance. Provide analytically-based decision recommendations to OPNAV for joint war fighting and support areas. Conduct net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums. Serve as the Navy's lead to Joint Requirements Oversight Council, Joint Capabilities Board, and Functional Capabilities Board. Provide the lead requirements and acquisition for OPNAV. Coordinate and lead Navy's role in Defense Planning Guidance, Program Decision Memoranda, Quadrennial Defense Review, and Defense Science Board studies. Participate in Office of the Secretary of Defense and Joint Staff analysis assessment and provide structure for coordination across the Navy. Coordinate and support Joint Analytical Model Improvement Program. Develop new analytic techniques for informing resource allocation decision; conduct all campaign and warfare mission-level analyses and develop investment strategy.				
Title: World Class Modeling, Simulation, and Capability Analysis  Articles:  FY 2010 Accomplishments: Provided the Navy with concise and innovative Modeling and Simulation (M&S) analyses and assessment to help optimize Navy Programs and investment decisions. Supported next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Evaluated new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Supported		8.931 0	8.721 0	4.780 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 2221.: JT Mission Assessment Studies		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Fleet readiness and logistics Modeling and Simulation (M&amp;S). Conducted verification, validation, and accreditation of select Navy models. Improved the ability to model emerging security challenges and operations concepts (irregular, catastrophic, and disruptive challenges). Developed optimization models that work across multiple warfare areas. Improved the traceability of data through the modeling hierarchy. Refined the linkages between cost and mission performance in performance-modeled acquisition programs. Conducted Joint Mission Warfare M&amp;S in the Sea Strike, Information Dominance Sea Shield, and Sea Basing mission areas. Conducted mission-level warfare M&amp;S of Joint Capability Areas.</p> <p><b>FY 2011 Plans:</b> Continue to provide the Navy with concise and innovative M&amp;S analyses and assessment to help optimize Navy Programs and investment decisions. Support next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Evaluate new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance &amp; Reconnaissance interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Support Fleet readiness and logistics M&amp;S. Conduct verification, validation, and accreditation of select Navy models. Improve the ability to model emerging security challenges and operations concepts (irregular, catastrophic, and disruptive challenges). Develop optimization models that work across multiple warfare areas. Improve the traceability of data through the modeling hierarchy. Refine the linkages between cost and mission performance in performance-modeled acquisition programs. Conduct Joint Mission Warfare M&amp;S in the Sea Strike, Information Dominance Sea Shield, and Sea Basing mission areas. Conduct mission-level warfare M&amp;S of Joint Capability Areas.</p> <p><b>FY 2012 Plans:</b> Continue to provide the Navy with concise and innovative M&amp;S analyses and assessment to help optimize Navy Programs and investment decisions. Support next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Evaluate new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance &amp; Reconnaissance interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Support Fleet readiness and logistics M&amp;S. Improve the traceability of data through the modeling hierarchy. Refine the linkages between cost and mission performance in performance-modeled acquisition programs. Conduct Joint Mission Warfare M&amp;S in the Sea Strike, Information Dominance Sea Shield, and Sea Basing mission areas. Conduct mission-level warfare M&amp;S of Joint Capability Areas.</p>				
Title: JT Mission Assessment Studies		2.291	6.515	4.730
Articles:		0	0	0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 2221.: JT Mission Assessment Studies		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p><b>Description:</b> Capabilities-Based Assessment (CBA) - The CBA is the Joint Capabilities Integration and Development System analysis process that includes three phases: the Functional Area Analysis (FAA), the Functional Needs Analysis (FNA), and the Functional Solution Analysis. The results of the CBA are used to develop a joint capabilities document (based on the FAA and FNA) or initial capabilities document (based on the full analysis). CBA funding provides the resource sponsors the means to develop the analytic underpinning required by Chairman of the Joint Chiefs of Staff Instruction 3170.01G to support the determination of Naval war fighting capabilities and force structure needed to support the Joint Requirements Oversight Council/ Joint Capabilities Integration and Development System requirements validation process and to inform Program Objective Memorandum programming decisions.</p> <p><b>FY 2010 Accomplishments:</b> Capabilities-Based Assessment (CBA) is a process designed to address future war fighting requirements and analysis needs. CBA efforts improved the quality of Analysis of Alternatives generated, complemented the warfare integration task, and increased the capability to respond to questions regarding the generation of requirements to address capability-based assessments.</p> <p><b>FY 2011 Plans:</b> Continue FY10 CBA efforts. The additional funds in FY11 were required to initiate FY11 CBAs supporting future Naval capability requirements for next-generation shipbuilding, aviation, and weapons systems. Provide analysis support for N8F Resource Sponsor development of Integrated Sponsor Program Proposal supporting Guidance to Develop the Force direction. The additional funding in FY11 will also cover Portfolio Management Decision Support System (PMDSS) implementation and operation costs. PMDSS was funded as part of PE 0605152N Project 2092 previously.</p> <p><b>FY 2012 Plans:</b> Continue FY11 CBA efforts.</p>				
<p><b>Title:</b> AOA for ASUW Capability</p> <p><b>Articles:</b></p> <p><b>FY 2010 Accomplishments:</b> Conducted analysis of alternatives for offensive anti-surface warfare capabilities, based on analysis plan and kill chain linkages assessment.</p> <p><b>FY 2012 Plans:</b> Conduct analysis of alternatives for offensive anti-surface warfare capabilities, based on analysis plan and kill chain linkages assessment.</p>		4.4680	-	4.5000
<p><b>Title:</b> OASUW Pre-Milestone A</p> <p><b>Articles:</b></p>		-	-	15.0000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 2221.: <i>JT Mission Assessment Studies</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
<b><i>FY 2012 Plans:</i></b> The additional funds in FY12 are required to initiate Offensive Anti-Surface Warfare (OASUW) pre-Milestone A requirements to continue material solution analysis to ensure compliance with statutory and regulatory requirements of this pre-Major Defense Acquisition Program effort. Efforts to be performed in support of OASUW requirements include analysis to support development of the Technology Development Document, Capabilities Development Document, and Technical Demonstration documentation.			
<b>Accomplishments/Planned Programs Subtotals</b>		28.100	27.963
<b>C. Other Program Funding Summary (\$ in Millions)</b>			
N/A			
<b>D. Acquisition Strategy</b>			
N/A			
<b>E. Performance Metrics</b>			
<p>The overall goal is to conduct analysis to support the Navy decisions needed to turn strategy and guidance into the fleet we need within acceptable risk. METRIC: Risks are balanced across capability that delivers the right capabilities within the resources available to Navy. Navy Assessment Program supports the development of platform specific studies and Capability-Based Assessments (CBAs), an analytical effort resulting in Functional Area Analysis (FAA), Functional Needs Analysis (FNA), and Functional Solutions Analysis (FSA). Efforts provide added analytical rigor relative to program's maturation under the Joint Capabilities, Integration, and Development System (JCIDS) and support warfare integration initiatives.</p> <p>Navy Standard Scenarios with Warfare and Warfare Support Analyses: Goal: To ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition and threat forces), key assumptions and input data are defined and traceable to government approved source material. METRIC: Consistency with other ongoing analyses as directed, develop Measures of Performance (MOPs) and Measures of Effectiveness (MOEs) and recommend appropriate modeling/methodology to support analysis. Models/methodology used reflect study objects, level of fidelity required and time constraints.</p> <p>Capability Based Assessments with Campaign Mission Analyses Analytical and Technical Support: Goal: To provide analyses and technical and engineering support including, but not limited to, joint campaign analysis that examines the ability to counter a range of coordinated threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, force structure of modernization decision; mission-level effectiveness analyses to determine system capabilities; analyses of alternative (AoA) force structures to determine ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations; cost-effectiveness and analyses; Acquisition Category Program Office and Systems Command (SYSCOM) assessments; and analyses of new technologies. METRIC: Develop analysis plans; determine proposed alternatives for analysis; and research performance data on current and future threats, coalition and own force systems; perform technology investigations and forecasts; develop or obtain cost data for current or planned systems; develop and use Cost Estimating Relationships (CERS) to determine cost for conceptual or future systems for which no cost data is available; identify analysis assumptions, limitations and uncertainties; use established models or develop new models or methodologies to perform analyses; and interpret and analyze results.</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 2221.: <i>JT Mission Assessment Studies</i>
<p>Campaign Analysis-Modeling and Simulation: Goal: Develop and maintain a standard set of models for use in warfare analyses and analyses performed to support Planning Strategy that work at the campaign, mission, and engagement levels. METRIC: A combination of model design statements, model study reports, system specifications, updated model reports, model/database documents, model verification and validation plans, code and Plan of Action and Milestones (POA&amp;M) reports developed or updated that encompass all aspects of Sea Power 21 to include at a minimum air, land, sea, and Command, Control, Communications, Computers, and Intelligence Surveillance and Reconnaissance (C4ISR).</p> <p>Joint Assessments and Integration and Investment Strategy Development: Goal: Conduct assessments to determine shortfalls and redundancies in existing or planned operational or support capabilities; identify key issues including deficiencies in war fighting capability; determine priorities for needed capabilities; assesses affordability of high payoff systems and technologies; assess effectiveness and affordability of alternative force structures; and formulate investment strategies. Continue development and refinement of Navy program planning to determine the war fighting wholeness and cost effectiveness of alternative Navy strategies. METRIC: Identify shortfalls and redundancies in existing or planned capabilities. Determine the impact of variations in warfare systems and architectures in threat, U.S. and combined forces and strategies. Provide engineering and analytic support for the assessment and transition of technology for use in the Investment Strategy.</p> <p>World Class Modeling (WCM), Simulation, and Capability Analysis: Goal: Development of new models or model upgrades to meet requirements identified by the WCM requirements process that support the Program Objective Memorandum (POM) decision-making process, with the goal of creating a state-of-the art set of models for use in warfare and warfare support analyses. METRIC: Develop model design documents, model study reports, system specifications, updated model reports, model documentation, model verification and validation plans, code, Plan of Action and Milestones (POA&amp;M) reports, and technical reports.</p> <p>The May 2007 revision of the Joint Chiefs of Staff's Joint Capabilities Integration and Development System instruction (CJCSI 3170.01F) requires a CBA to assess new requirements. A CBA instruction has been developed by the CNO's warfare integration office that prescribes a procedure and structure to this warfighting requirements generation process (JCIDS). A CBA is required to address and validate capability shortfalls or gaps as defined by combatant commanders. It is an analytical process that includes three phases: the Functional Area Analysis, the Functional Needs Analysis, and the Functional Solution Analysis. This process is designed to address future warfighting requirements and analysis needs and improve the quality of Analysis of Alternatives. CBA supports Navy programming decisions and provides the means to develop the analytic underpinning to support the determination of Naval capabilities and force structure recapitalization investments required to fulfill the Maritime Strategy.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy								<b>DATE:</b> February 2011			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>				<b>PROJECT</b> 3025: <i>Mid-Range Financial Improvement Plans</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3025: <i>Mid-Range Financial Improvement Plans</i>	1.532	1.436	1.244	-	1.244	1.462	1.503	1.544	1.582	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b>											
<p>One of DoD's and Navy's priority goals is to gain a clean and auditable financial statement. The Office of the Secretary of Defense (OSD) Comptroller, in his 8 August 2003 memorandum, directed the Military Departments and Defense Agencies, in coordination with the Defense Finance and Accounting Service (DFAS), to prepare a comprehensive mid-range financial improvement plan to identify measurable steps to ensure each material line is auditable, and ensure all major deficiencies are resolved.</p> <p>This project supports the Research, Development, Test and Evaluation, Navy (RDT&amp;E,N) portion of the larger DoD and Navy-wide effort to implement the Financial Improvement Plan (FIP). Corrective actions required to resolve known deficiencies and determine resource requirements (people and systems) are being identified.</p>											
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>								<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	
<b>Title:</b> Mid-Range Financial Improvement Plans								1.532	1.436	1.244	
<b>Articles:</b>								0	0	0	
<b>FY 2010 Accomplishments:</b>											
<ul style="list-style-type: none"> <li>- Continued performing obligation validations ensuring accuracy.</li> <li>- Continued eliminating problem disbursements older than 120 days, narrowing to 60 days, and potentially narrowing even further.</li> <li>- Continued to be proactive in executing the first and second phases (discovery and correction) of the Office of Management and Budget Circular No. A-123 process which requires Federal agencies take responsibility for conducting a rigorous assessment of internal controls over financial reporting.</li> <li>- Initiated and submitted the assertion for the following three segments: Financial Reporting, Civilian Pay and Reimbursable Work Orders.</li> <li>- Initiated the Statement of Budgetary Resources (SBR) assertion.</li> </ul>											
<b>FY 2011 Plans:</b>											
Continue all efforts of FY10.											
<b>FY 2012 Plans:</b>											
Continue all efforts of FY11.											
<b>Accomplishments/Planned Programs Subtotals</b>								1.532	1.436	1.244	

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 3025: <i>Mid-Range Financial Improvement Plans</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> Financial records are compliant in accordance with the Chief financial Officers Act.		

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt				PROJECT 3039: CHENG			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3039: CHENG	18.074	19.219	16.566	-	16.566	19.274	19.668	20.122	20.489	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
Develops and implements architecture-based systems engineering processes, methods and tools that assure integrated and interoperable systems are delivered to the fleet. This project provides the mission-oriented technical basis for implementing capability-based acquisition management within the Navy to engineer and field Navy and Marine Corps combat systems, weapon systems, and command, control, communications, computers and intelligence (C4I) programs that must operate as family-of-systems (FoS) or system-of-systems (SoS). The focus of this project is on identifying the functions, relationships, and connections between systems at both the force and unit level and across warfare mission areas, and encompasses three key elements: Systems Engineering to provide the framework for making engineering decisions by war fighting capability at the FoS/SoS level and supports consistent engineering and investment decision-making across Navy and Marine Corps programs within capability-based acquisition portfolios. Naval Collaborative Engineering Environment development and implementation as a DON enterprise resource for Naval integration and interoperability information to enable collaboration and decision support among Fleet organizations, Program Executive Offices, Program Managers, Systems Commands, prime contractors, Resource/Warfare Sponsors and Comptroller organizations. Standards, Policies and Guidelines engineering and technical staff to implement DoN, Office of the Secretary of Defense (OSD) and Joint integration and interoperability and Anti-Tamper initiatives.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: Standards, Policy, and Guidelines								4.844	5.150	4.487	
								Articles: 0	0	0	
FY 2010 Accomplishments:											
Continued alignment of standards, policy, and guidelines across the Naval Enterprise and with OSD and Joint Service organizations - added alignment with law. Investigated Aggregation of Systems and the application of Systems Engineering Processes and Practices to them across the Naval Enterprise, particularly those involved in Information Assurance (IA)and Integration and Interoperability. Continued Information Strategic Plan (ISP) and NR-KPP Implementation Plans in support of Integration and Interoperability management. Established Net Ready Key Performance Parameter (NR-KPP) processes and practices to support the implementation of net-centric requirements for clarifying and resolving policy and guidance issues. Continued representing ASN RD&A in Systems Engineering and related forums, such as Assistant Secretary of Defense(ASD) NII Interoperability, Information Technology, Architecture, et al sessions, Joint policy sessions, and OSD ATL policy sessions. Continued roadmap for acquisition programs on how policies and programs fit together and added investigation and resolution of policy issues, particularly for NR-KPP, ISP, and Information Assurance.											
FY 2011 Plans:											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 3039: <i>CHENG</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
Continue all efforts of FY10. <b>FY 2012 Plans:</b> Continue all efforts of FY11.			
<b>Title:</b> Naval Collaborative Engineering Environment (NCEE)  <b>FY 2010 Accomplishments:</b> <ul style="list-style-type: none"> <li>- Successfully transitioned NCEE, a CHSENG initiated environment, to Naval Systems Engineering Resource Center (NSERC), a collaborative system engineering environment that provides support across System Commands (SYSCOMs) and their associated program offices. Leadership of the environment is also transitioned to SESG. CCB instituted to guide growth, changes, documentation, risk analysis, and configuration management.</li> <li>- Continued to grow NSERC from its IOC deployment in August 2008 to the current capabilities that support 14,000+ users on collaborative capabilities and approximately 3,000 users on system engineering tools usage.</li> <li>- Continued to support programs in effectively applying system engineering processes and tools through training, consulting sessions, and availability of NSERC. Developed computer based training for NSERC Introduction, DOL Online Opportunities Recruitment System (DOORs), and Risk Exchange. Enabled program usage of Systems Engineering Technical Reviews according to new Systems Engineering Stakeholders Group policy.</li> <li>- Coordinated with Systems Command Architecture Development (SADIE) and Integration Environment to establish the alignment between system level architecture, developed by SYSCOM program offices, and enterprise level architecture.</li> <li>- Working closely with Electronic Data System (EDS) and Defense Information Systems Agency (DISA) resolved a bandwidth problem that greatly improved accessibility and timeliness for NSERC customers</li> <li>- Coordinated closely with DON CIO and SYSCOM CIO to support capabilities alignment policies including portal, infrastructure, and applications reduction.</li> <li>- Successfully deployed the initial prototype of the Probability of Program Success tool on ASN RDA Dashboard</li> <li>- Coordinated across acquisition and operational offices to established full scope of requirements for PoPS deployment on ASN RDA Dashboard.</li> <li>- Fully transitioned Naval Architecture Repository System (NARS) and Chief Engineer Architecture Tool for Engineering Review (CHEATER) to CHSENG TD.</li> </ul> <b>FY 2011 Plans:</b> Continue all efforts of FY10  <b>FY 2012 Plans:</b>		2.640 0	2.848 0
		2.482	0

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 3039: <i>CHENG</i>
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
Continue all efforts of FY11			
<b>Title:</b> Systems Engineering  <b>Articles:</b>		10.590 0	11.221 0
<b>FY 2010 Accomplishments:</b> Continued to authenticate Naval Power 21 capabilities-based Integrated Architecture product assessments; develop the Naval Architecture Repository System (NARS) and technical views to support decision-making. - Continued Software Acquisition Process Improvement (Section 804) pilot project implementation. - Continued System-of-Systems (SOS) Systems Engineering (SE) Guidebook Volumes I and II to address specialty engineering functions to include Human Systems Integration, Safety, etc. - Continued SOS SE Integrated Product Team (IPTs) for Battlespace, Mine Warfare and Missile Defense Agency to support CNO priority capability needs. - Continued acquisition milestone review documentation to assess Integration and Interoperability in Information Support Plans, Systems Engineering Plans and Risk Assessments and incorporate results in the ASN Research, Development and Acquisition Dashboard. - Continued NP 21 Integration and Interoperability Management Plan (I&IMP) implementation. - Developed and promulgate integrated architecture roadmap with Mission Capability Package System View 8 and Capability Evolution Document. - Continued mission and capability technical warrant holder roles and responsibilities.			
<b>FY 2011 Plans:</b> Continue all efforts of FY10.			
<b>FY 2012 Plans:</b> Continue all efforts of FY11.			
<b>Accomplishments/Planned Programs Subtotals</b>		18.074	19.219
<b>C. Other Program Funding Summary (\$ in Millions)</b>			
N/A			
<b>D. Acquisition Strategy</b>			
N/A			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 3039: <i>CHENG</i>

**E. Performance Metrics**

Standards, Policy, and Guidelines: - Alignment of SPGs across the Naval Enterprise and with OSD and Joint organizations will support standard acquisition implementation and improve compatibility and interoperability thereby lowering development and maintenance costs across programs

- Aggregating systems for the purpose of conducting certification and accreditation and consolidating mandatory documentation for aggregations versus individual systems will optimize (cost tradeoffs and focus on high priority issues) certifications, reduce paperwork and associated costs, and put attention on systems engineering, IA, and ISPs for systems in their aggregated operational state vice just the individual system development state. Document costs for major programs are \$1 to \$3.5 Million per system. An aggregation may include 15 or more systems with four or more being major systems. Aggregation presents a high potential for Return on Investment.

- NR-KPP processes will clarify requirements and capabilities (including their metrics) that acquisition programs need to develop systems. This clarification will eliminate guesses in terms of operational needs, thereby reducing the risk of program failure and reducing program and life-cycle costs.

Naval Collaborative Engineering Environment (NCEE): Number of customers/ users.

Percentage of time the tool is available.

Number of tools integrated into the system.

Systems Engineering:

Reviews and comment on all ACAT I system engineering plans presented to ASN (RDA) within 30 days of receipt to provide system engineering and system of system system engineering guidance to the Acquisition Program Manager.

Review 80% of the MDAP Gate reviews held in FY10 to provide software acquisition process improvement guidance, system of systems engineering guidance and integration and interoperability management guidance to the Acquisition Program Managers.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy								<b>DATE:</b> February 2011			
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<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3330: <i>Naval Research Laboratory (NRL) Facilities Modernization</i>	-	-	2.118	-	2.118	2.438	2.438	2.438	15.954	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>Note</b> This is a new project starting FY12.											
<b>A. Mission Description and Budget Item Justification</b> This program has been established to provide a systematic and planned approach to improve vital in-house science and technology (S&T) laboratory facilities which are reaching or have reached critical stages of deterioration. The program includes restoration and modernization (R&M) initiatives for about 350,000 net square feet, where the average age of the buildings is 67 years old.											
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>								<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	
<b>Title:</b> NRL Facilities Modernization  <div style="text-align: right;"><b>Articles:</b></div> <b>Description:</b> Critical Science and Technology research cannot be sustained or succeed in deteriorated facilities. World class research can only be accomplished in facilities that are at a minimum "adequate", but preferably "state-of-the-art." Due to their advanced age and deterioration, funds are planned to restore/modernize various laboratory facilities at the Naval Research Laboratory.  <b>FY 2012 Plans:</b> Initial year of a concerted effort to modernize electronics science and technology laboratories, equipment, and specialized facilities. Existing NRL buildings will be renovated in order to relocate critical electronics S&T equipment and specialized laboratories from space that has reached a significant level of maintenance and operational disruption and failure due to advanced age (45 year old building) and inability to sustain and modernize with scientists and researchers in place.								-	-	2.118 0	
<b>Accomplishments/Planned Programs Subtotals</b>								-	-	2.118	
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A											
<b>D. Acquisition Strategy</b> None											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605853N: <i>Management, Technical &amp; Intl Supt</i>	<b>PROJECT</b> 3330: <i>Naval Research Laboratory (NRL) Facilities Modernization</i>

**E. Performance Metrics**

Restoration and modernization of the laboratory facilities will begin in a phased approach until completion.